

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

DATE: JAN 12 1979
SUBJECT: Fill operations in Brook Park, Oh.
FROM: Tom Glatzel
TO: Files

The purpose of this report is to summarize the field investigation conducted to examine the placement of fill material in Abrams Creek, City of Brook Park, Ohio, and to determine the applicability of section 404 of the Clean Water Act of 1977.

The area being filled is approximately 1000 feet by 500 feet, and lies along Abrams Creek southeast of the Cleveland Tank Plant in the City of Brook Park, Illinois. The fill is being placed on property owned by the City of Brook Park, and is entering the creek and adjacent wetlands.

On December 13, 1978, I visited the site with John Wilson, of the EDO, Fred Mueller, of the U.S. Army Corps of Engineers, Steve Tuckerman, of the OEPA, and Mr. Wasosky of Euthenics, Inc., consulting engineers for the City of Brook Park. At the site, the land slopes sharply from the level of Brook Park Industrial Parkway down to the level of Abrams Creek. The difference in height is about 30 feet. The original creek valley was approximately 200 feet wider before the fill took place and the creek itself has been displaced 200 feet by the fill. The creek valley has been destroyed by the fill, and the creek is now flowing along the base of a bluff that once delineated the south side of the valley.

The remaining part of the creek valley at the inspection site exhibited saturated soil conditions and the predominant species noted was Typha latifolia (cattail). Swamp white oak (Quercus bicolor) was in the background. The stream flows into the Rocky River and is a tributary to a navigable water of the United States.

The fill material consists of used foundry sand with rubbish, tires, small amounts of rubble and pieces of oil-soaked scrapwood. Pieces of scrap iron and oil-soaked timbers were also found in or on top of the fill. The edge of the fill area slopes steeply down to the creek and is marked with fissures that show the results of erosion on the fill material. The slope is unstable, and material is sloughing off into the creek and adjacent wetland. Some of the foundry sand and scrap wood had washed into the wetland and appears as an outwash deposit extending into the wetland. A dirt ramp for trucks or tracked vehicles extend from Brook Park Industrial Parkway down to the wetland. This is shown in the accompanying sketch and photographs.



The total volume of the fill was estimated to be 60,000 cubic yards of foundry sand. Laboratory analysis has shown the sand to be moderately to heavily polluted with barium, chromium, iron, nickel, and copper.

Minutes of the June 26, 1978, meeting of the Brook Park City Council indicate that Mayor Wedo stated the purpose of the fill was to reclaim land for recreational purposes. The purported reason for the fill was to build a golf course on the land.

The activity involves the discharge of fill material in waters of the United States, as defined in 33 CFR 323.2(n), as the abovementioned meeting minutes indicate the activity is a site-developmental fill for recreational use.

A Department of the Army permit is required for this operation since it involves a discharge into a tributary (and its adjacent wetlands) of a navigable water of the United States. Discharge of fill material into any water of the United States is not permitted unless all conditions in 33CFR 323.4-2(b) are met. These conditions require that the fill material be free from toxic pollutants and be properly maintained to prevent erosion. Field investigations and laboratory analyses have indicated that these conditions have not been met, and the activity is a violation of section 404 of the Clean Water Act of 1977.

The continued existence of the fill material in this location is causing the release of excessive amounts of pollutants into Abrams Creek, and, subsequently, the Rocky River. The placement of the fill material has also caused erosion of the opposite bank of Abrams Creek and has aggravated flooding conditions downstream by destroying flood water retention areas. These conditions will require substantial corrective measures.

The measures preferred by the EPA is the complete removal of all deposited material and restoration of the creek valley to its original condition. However, the following measures, if implemented to our satisfaction, will be considered acceptable:

- 1) Removal of all deposited material to a point not less than twenty feet in a horizontal direction from the present bank of the creek, and down to natural soil.
- 2) Removal of the remaining fill as necessary to create a slope of not more than one foot vertical for every four feet horizontal.
- 3) Construction of a berm or bulkhead along the entire length of the fill with returns designed to prevent fill from sloughing around the edges of the barrier. The barrier shall be high enough and of sufficient strength to prevent any lateral movement of the fill material. In addition, the barrier shall be of an impermeable material and constructed in such a way as to prevent the leaching of pollutants from the fill into the wetland through ground water or

surface water runoff.

- 4) Placement of an impervious layer of clay or other sealant over the entire surface of the existing fill so as to prevent the exposure of the fill to rain or surface water and thus preclude the leaching of pollutants from the fill.
- 5) Placement of a layer of topsoil over the impervious liner and seeding, planting, or sodding to establish a vegetative cover.
- 6) Regular inspection and maintenance of the barrier, liner, and vegetative cover to prevent the leaching of pollutants from the fill material.
- 7) Cooperation with EPA and other agencies in the establishment and maintenance of a water quality monitoring program for Abrams Creek to determine the effectiveness of the corrective measures in (1) through (7) above.

This program could also monitor water quality in the creek relative to other potential sources of pollution.